



# SCHÖNOX® CLS

## Rapid drying cementitious flowing screed

SCHÖNOX CLS is suitable to prepare bonded screeds and floating screeds on insulation material or separating layer according to DIN 18 560 in interior areas. Especially for renovation of bathrooms. SCHÖNOX CLS is characterized by a very low shrinkage. After adding of 3.5 l water to 25.0 kg of powder SCHÖNOX CLS is ready for use, as well as manual and by machine processable.



### Product characteristics

- EMICODE EC 1<sup>PLUS</sup>: very low emission
- for interior use
- self-levelling
- rapid hardening
- high level of hardness and strength
- suitable for application on subfloor heating systems
- low tension/stress
- reinforced with fibres
- pumpable
- low in chromate according to REACH

### Applications

#### SCHÖNOX CLS is suitable for preparation of:

- Bonded screeds and floating screeds on insulation material or separating layer according to DIN 18 353 and DIN 18 560.
- Bonded screeds 5.0 up to 70.0 mm.
- heated screeds
- screed completions, ready for covering in short time
- repairing of holes and slots in interior areas.

#### SCHÖNOX CLS on insulating layers, thickness of insulating layers ≤ 40 mm

- The minimum layer-thickness ≥ 35 mm, at distributed loads ≤ 2 KN/m<sup>2</sup>, at perpendicular payloads ≤ 1 KN, compressibility of the insulating layer ≤ 5 mm.
- The minimum layer-thickness ≥ 50 mm, at distributed loads ≤ 3 KN/m<sup>2</sup>, at perpendicular payloads ≤ 2 KN, compressibility of the insulating layer ≤ 5 mm.
- The minimum layer-thickness ≥ 55 mm, at distributed loads ≤ 4 KN/m<sup>2</sup>, at perpendicular payloads ≤ 3 KN, compressibility of the insulating layer ≤ 3 mm.
- The minimum layer-thickness ≥ 60 mm, at distributed loads ≤ 5 KN/m<sup>2</sup>, at perpendicular payloads ≤ 4 KN, compressibility of the insulating layer ≤ 3 mm.

### SCHÖNOX CLS on separating layer

- The minimum layer-thickness ≥ 30 mm, at distributed loads ≤ 2 KN/m<sup>2</sup>, at perpendicular payloads ≤ 1 KN.
- The minimum layer-thickness ≥ 45 mm, at distributed loads ≤ 3 KN/m<sup>2</sup>, at perpendicular payloads ≤ 2 KN.
- The minimum layer-thickness ≥ 50 mm, at distributed loads ≤ 4 KN/m<sup>2</sup>, at perpendicular payloads ≤ 3 KN.
- The minimum layer-thickness ≥ 55 mm, at distributed loads ≤ 5 KN/m<sup>2</sup>, at perpendicular payloads ≤ 4 KN.

Advise: The layer thickness of screeds under tiles and slabs has to be min. 45 mm. At heated screeds according type A of construction, the thickness has to be increased by the diameter of the heating pipe. The joint plan has to be provided by the architect.

In wet areas (e.g. bathrooms) is SCHÖNOX CLS be protected by a SCHÖNOX waterproofing membrane and tiles.

### Substrates

#### SCHÖNOX CLS is suitable for filling, smoothing, evening and levelling of:

- concrete
- cement and rapid cement screeds

### Requirements of substrate

- Adequate strength, load bearing capacity, dimensional stability and permanent dryness.
- Free of residues which reduce adhesion, e.g. dust, dirt, oil, fat and loose particles.
- Surface treatments or any "friable" areas of the subfloor must be mechanically removed and the subfloor repaired with SCHÖNOX levelling compounds as required.
- Old, loose and weak levelling layers should be removed mechanically.

### Technical data

- Pot life: approx. 30 minutes at +20 °C
- Ready for foot traffic:<sup>1</sup> after approx. 90 minutes
- Ready for covering:
  - earliest after approx. 24 hours for ceramic coverings
  - earliest after approx. 72 hours for natural and artificial stone
  - for heated screeds according to EN 1264 ≤ 1,8 CM-% for all kinds of coverings
- Application temperature: +5 °C to +25 °C
- Material consumption: approx. 1,9 kg/m<sup>2</sup>/mm
- Reaction to fire: A1 / A1<sub>fl</sub>
- SCHÖNOX CLS fulfills the requirements according the EN 13813: CT-C25-F5.

All values are approximate and are subject to climatic fluctuations.



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- Rooms in buildings without a basement, are to be sealed against rising dampness in compliance with the standard.
- Cement screeds are required to display a residual moisture reading of  $\leq 2.0$  CM.
- The requirements of the relevant valid standards, guidelines and data sheets apply.

## Priming

- **normal absorbent substrates such as:**
  - cement screeds
  - rapid cement screeds
- prime with SCHÖNOX KH (1:5) or SCHÖNOX KH FIX .
- concrete
- prime with SCHÖNOX KH (1:3) or SCHÖNOX KH FIX .

## Mixing ratio

- For 25,0 kg SCHÖNOX CLS approx. 3,5 l water

## Recommended method of working

- Using a clean receptacle, add #1# to cold clean water to form a homogeneous mixture. Use of a disc stirring rod or a pump like inotec or other suitable pumps, is recommended. In case of interruption of work pump and hoses necessarily should be cleaned immediately.
- Using a pump, the flow spread needs to be controlled constantly.
- Spread SCHÖNOX CLS using a suitable tool (surface blade) and ventilate using a spike roller.
- Revise alternative with a screed wobble metal rod.
- Edge and movement joints must be taken over and should be protected (e.g. SCHÖNOX RANDSTREIFEN) against levelling compound to run in.
- For levelling works on concrete the levelling is done in accordance with the laid covering directly before the laying of the covering starts.
- Carry out preparatory work - such as filling joints, evening out hollows and unevenness - using the sturdy repair

mortar SCHÖNOX PL or SCHÖNOX PL PLUS.

- If a second layer of levelling compound is to be applied, the first levelling compound layer should be primed with SCHÖNOX KH (1:1) or SCHÖNOX KH FIX. The maximum layer thickness may not be exceeded in case of two-layer application. The second layer may not exceed the layer thickness of the first.
  - Protect curing SCHÖNOX CLS levelling layers from high ambient temperatures, direct sunlight and draughts.
  - High temperatures accelerate, low temperatures slow down the setting.
  - Pay attention to the ZDB-leaflets „Hinweise für die Ausführung von Abdichtungen im Verbund mit Bekleidungen und Belägen aus Fliesen und Platten für den Innen- und Außenbereich“ and „Keramische Beläge im Schwimmbadbau - Hinweise für Planung und Ausführung“ as well as „Bodenbeläge aus Fliesen und Platten außerhalb von Gebäuden“.
  - Contact to metal like water-bearing pipes must be avoided (e.g. sealing of pipe penetrations), because especially galvanised steel pipes have no sufficient corrosion protection.
  - Clean tools in water immediately after use.
  - Heating screeds according to DIN EN 1264 start to warm up after 1 days. Therefore hold 3 days a flow temperature of 25 °C and afterwards the maximum flow temperature (max. 65 °C) for 4 days. Subsequent warm down the screed until up to the cooling-off (protect for draught and rapid cooling-off). Lay floor coverings up to 18 °C surface temperature (corresponds to a flow temperature of 20 to 25 °C - depending on surrounding temperature).
- Use of SCHÖNOX CLS as floating screed**
- Place an edge strip (at least 10 mm) to all rising parts and fix it.
  - Consider a seam sealed, trough-shaped intermediate layer (like for flowing screeds).
  - For heated screeds mark checkpoints for moisture measurement at representative positions.

- Pay attention to the relevant standards for floor screeds.
- For unheated screeds, max. 60 m<sup>2</sup> and max. 8 m side length; for heated screeds, max. 40 m<sup>2</sup> and max. 6,5 m side length. Square or compact length-to-width ratios (max. 1 : 2) are recommended.
- In thermally loaded areas (e.g. sunlight) field sizes have to be kept to a small size. Strive for compact field sizes. The length-to-width ratios of 1:2 should not be exceeded. The max. side length of fields should not exceed 5 m.
- If in doubt, ask for special information.

## Packaging

- 25.0 kg paper sack

## Storage

- Store SCHÖNOX CLS in cool, dry conditions.
- Storage life of 6 months (in closed packaging).
- Opened packages should be closed immediately and used up as soon as possible.

## Disposal

- Empty packaging completely and dispose of in accordance with regulations
- For the disposal of product residues, waste water and containers with adherent product residues please follow the local governmental regulations.

## EMICODE

- EC 1<sup>PLUS</sup>: very low emission

## GISCODE

- ZP1 - cement products, low in chromate

## EPD - Self-declaration

Sika Deutschland GmbH declares that the product fulfills the criteria for modified mineral mortars of group 1.

## ENVIRONMENTAL PRODUCT DECLARATION

acc. to ISO 14025 and EN 15804

## Owner of declaration

# SCHÖNOX® CLS

Deutsche Bauchemie e.V.  
 Industrieverband Klebstoffe e.V.  
 Verband der deutschen Lack- und Druck-  
 farbenindustrie e.V.

## Editor

Institut für Bauen und Umwelt e.V. (IBU)

## Program owner

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30.07.2013

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29.07.2018

## Instructions

- All information applies to standard conditions and relates to the non-extended levelling compound.
- SCHÖNOX CLS contains cement. Alkaline reaction when it comes in contact with moisture, therefore protect skin, eyes and respiratory system. Do not breathe in dust. In case of contact rinse immediately with plenty of water. In case of contact with eyes seek additional medical advice.
- Please follow the relevant product data sheets when using complementary products. If in doubt, we recommend obtaining further information from the manufacturer.
- The TKB-data sheet "Technische Beschreibung und Verarbeitung von Bodenspachtelmassen" should be followed.

The applicable recommendations, guidelines, DIN regulations and safety data sheets are to be observed, together with the recognised architectural and engineering regulations. We guarantee that our products leave the factory in perfect condition. While our recommendations for use are based on tests and practical experience, they can only provide general guidance without any assurance as to product characteristics, since we have no influence over the conditions on site, the execution of the work or the method of processing. This product data sheet supersedes all previous editions.



The Sika management system is certified to ISO 9001 and 14001 by SQS

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